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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/803,266      | 03/09/2001  | Arthur A. Alfaro     | 285-148             | 7075             |

7590 10/04/2002

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EXAMINER

PRIDDY, MICHAEL B

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3732

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/803,266

Applicant(s)

ALFARO ET AL.

Examiner

Michael B Priddy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1,2,5-7,11-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) 3,4,8,10,15 and 19-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the intervertebral dowel" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 11 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Meriwether et al. (US 6,090,143). Meriwether et al. teach a box cage 110 for intervertebral body fusion which has upper and lower surfaces defining a thickness therebetween and cooperates with a locking screw 132 having threads which project through slots in the upper and lower surfaces of cage 110 to engage the surface of adjacent vertebrae. Windows in the sides of cage 110 would allow for receipt of bone

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growth inducing factors. A description of the procedure used to implant the cage/screw combination is set forth with reference to Fig. 5 in lines 10-30 of column 5.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 12, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meriwether et al. Meriwether et al. teach a box cage 110 for intervertebral body fusion which has upper and lower surfaces defining a thickness therebetween and cooperates with a locking screw 132 having threads which project through slots in the upper and lower surfaces of cage 110 to engage the surface of adjacent vertebrae. The screw 132 contains a hollow interior with windows along its outer surfaces which would allow for receipt of bone growth inducing factors. The head of screw 132 is depicted with a cross-point recess for receipt of insertion instrumentation. Therefore, Meriwether et al. teach all of the limitations of the present invention except that the first component is a generally C-shaped ring.

It would have been an obvious matter of design choice to one skilled in the art at the time the invention was made to construct the cage of Meriwether et al. in a C-shaped configuration since applicant has not disclosed that such shape solves any stated problem or is anything more than one of numerous shapes or configurations a

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person ordinary skill in the art would find obvious for the purpose of providing a forming edge in the heating portion or clamp. *In re Dailey and Eilers*, 149 USPQ 47 (1966).

Claims 5-7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meriwether et al. as applied to claims 1 and 12 above, and further in view of Boyce et al. (US 6,294,041). Meriwether et al. teach all of the limitations of the present invention except the first component is partially surface demineralized.

Boyce et al. teach a method for osteoimplant manufacture the inventive concept of which includes formation of an implant 40 implantable between adjacent vertebrae as shown in Fig. 4. In lines 54-57 of column 7, Boyce et al. disclose production of an implant having a fully or partially demineralized outer surface which yields surface-exposed collagen capable of promoting and/or accelerating new bone growth (col. 2, lines 1-6). It would have been obvious to one of skill in the art at the time of the present invention to form the cage of Meriwether et al. of bone having a partially demineralized surface so that new bone growth was promoted and/or accelerated upon implantation of the cage and screw combination.

#### ***Allowable Subject Matter***

Claims 3, 4, 8, 10, 15 and 19-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ferree, Wing et al., Bagby, Aebi and Knothe have all been cited as devices having similar structure and function to that of Applicant's invention and to show the general state of the art. Alfaro et al. has been cited as a related application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Priddy whose telephone number is (703) 308-8620. The examiner can normally be reached on Mon.-Fri. 8 a.m. - 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (703) 308-2582. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

Michael B. Priddy  
*Michael B. Priddy*  
September 23, 2002

*Kevin Shaver*  
KEVIN SHAVER  
9/30/02  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700